



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,670	11/07/2005	Yujin Zheng	046124-5360	7650
55694 7590 08/19/2009 DRINKER BIDDLE & REATH (DC) 1500 K STREET, N.W. SUITE 1100 WASHINGTON, DC 20005-1209				
EXAMINER				
JONES, JAMES				
ART UNIT		PAPER NUMBER		
2873				
MAIL DATE		DELIVERY MODE		
08/19/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/525,670

**Applicant(s)**

ZHENG ET AL.

**Examiner**

JAMES C. JONES

**Art Unit**

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (5513201) in view of Kusuyama (20020191296) hereafter Kusuyama.

Regarding claim 1 Yamaguchi discloses an optical condenser device comprising: a first light source (fig. 56, col. 7, lines 54-60 the light source that delivers the light that will be transmitted by the combiner as the "first light source" and "12" as the "active layer"); a second light source (fig. 56, col. 7, line 54-60 the light source that delivers the light that will be reflected by the combiner as the "second light source" and "12" as the "active layers"); and a first optical combiner for combining beams from the first light source with beams from the second light source (fig. 56, "90" as the "optical combiner"), the first light source having a first semiconductor laser array in which a plurality of semiconductor laser arrays, each having a plurality of active layers aligned in parallel in a first direction, a first collimator lens for collimating a plurality of beams in a plane perpendicular to the first direction, which beams are emitted from the plurality of active layers, and a first beam converter for receiving the beams collimated by the first collimator lens to rotate the transverse section of each beam by substantially 90.degree. (fig. 56, col. 7, lines 54-60 "12" as the "active layer" "20" (the collimating lens that

collimates the light from the first light source) as the "first collimator lens" "30" (the beam converter that converts the light form the first light source) as the "first beam converter"), the second light source having a second semiconductor laser array in which a plurality of semiconductor laser arrays, each having a plurality of active layers aligned in parallel in a second direction, a second collimator lens for collimating a plurality of beams in a plane perpendicular to the second direction, which beams emitted from the plurality of active layers, and a second beam converter for receiving the beams collimated by the second collimator lens to rotate the transverse section of each beam by substantially 90.degree. (fig. 56, col. 7, lines 54-60 "12" as the "active layer" "20" (the collimating lens that collimates the light from the second light source) as the "second collimator lens" "30" (the beam converter that converts the light form the second light source) as the "second beam converter"), and the first optical combiner having one or more transmitting portions for receiving and transmitting the beams emitted from the first beam converter and one or more reflecting portions for receiving and reflecting the beams emitted from the second beam converter to combine the beams transmitted through the transmitting portions with the beams reflected by the reflecting portions (fig. 56 col. 28, lines 22-40) but does not specifically disclose a plurality of stacked semiconductor arrays. Kusuyama teaches that in a semiconductor laser device that it would be desirable to have a plurality of semiconductor arrays stacked on top of each other (fig. 17, par. [0089] for the purpose of making it easy to increase the output. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have included a plurality of stacked semiconductor laser

arrays in the semiconductor laser device of Yamaguchi as modified by Kusuyama since Kusuyama teaches that in a semiconductor laser device that it would be desirable to have a plurality of semiconductor arrays stacked on top of each other for the purpose of making it easy to increase the output.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10523634 in view of Kusuyama (20020191296). Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons: application 10523634 discloses the limitations of claim 1 (see application 10523634, claim 1) but does not specifically disclose a plurality of stacked semiconductor arrays. Kusuyama teaches that in a semiconductor laser device that it would be desirable to have a plurality of semiconductor arrays stacked on top of each other for the purpose of making it easy to increase the output. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have included a plurality of stacked semiconductor laser arrays in the semiconductor laser device of 10523634 as modified by Kusuyama since Kusuyama teaches that in a semiconductor laser device that it would be desirable to have a plurality of semiconductor arrays stacked on top of each other for the purpose of making it easy to increase the output.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Allowable Subject Matter***

Claims 2-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: with respect to the allowable claims, none of the prior art either alone or in combination disclose or teach of the claimed combination of limitations to warrant a rejection under 35 USC 102 or 103. Specifically, in reference to claim 2 (and its dependents), none of the prior art either alone or in combination disclose or teach of the claimed optical condenser specifically including, as the distinguishing features in combination with the other limitations the claimed "transmitting portions and the reflecting portions of the first optical combiner both have strip-like shapes elongated in the direction of stacking of the laser arrays, and the first optical combiner is a flat plate having the transmitting portions and the reflecting portions positioned alternately".

Regarding claim 4 (and its dependents), none of the prior art either alone or in combination disclose or teach of the claimed optical condenser specifically including, as the distinguishing features in combination with the other limitations the claimed "the second optical combiner having one or more transmitting portions for receiving and transmitting the beams combined by the first optical combiner and one or more reflecting portions for receiving and reflecting the beams emitted from the third beam converter to combine the beams transmitted through the transmitting portions with the beams reflected by the reflecting portions".

Regarding claim 5 (and its dependents), none of the prior art either alone or in combination disclose or teach of the claimed optical condenser specifically including, as the distinguishing features in combination with the other limitations the claimed "the second optical combiner having one or more transmitting portions for receiving and transmitting the beams emitted from the third beam converters and one or more reflecting portions for receiving and reflecting the beams combined by the first optical combiner to combine the beams transmitted through the transmitting portions with the beams reflected by the reflecting portions".

#### ***Response to Arguments***

Applicant's arguments dated 5/18/2009 with respect to the rejection(s) of claim 1 by Yamaguchi et al. in view of Yamaguchi have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, claim 1 is now rejected by Yamaguchi in view of Kusuyama as per rejection above. Therefore a new non-final rejection is now being made.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES C. JONES whose telephone number is (571)270-1278. The examiner can normally be reached on Monday thru Friday, 8 a.m. to 5 p.m. est. time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James C. Jones/  
Examiner, Art Unit 2873  
8/7/2009

/Jordan M. Schwartz/  
Primary Examiner, Art Unit 2873